

Amended Patent Claims

1. (original) A dental implant

an anchoring head (2) for a structural element
(15) and

a screw element (3) with a thread core (8) and
a self-cutting outer thread (9),

characterized in that

the thread core (8) and the outer thread (9)
have three segments following one another in succession from
crestal to apical, namely

a crestal segment (10) adjoining the
anchoring head (2) with a constant outer diameter (D_9) of the outer
thread (9) and a thread core (8) conically tapering in the apical
direction,

a middle segment (12) with a substantial
outer diameter (D_{11}) of the thread core (8), and a tip segment (13)
with an outer thread (9) of an outer diameter (D_{13}) tapering in the
apical direction and a conically tapering diameter (D_{14}) of the
thread core (8).

2. (currently amended) The dental implant according to
~~claim 1 or 2~~ [sic] claim 1, characterized in that the outer thread
(9) is formed as a double thread.

4 3. (currently amended) The dental implant according to
5 claim 1 ~~or 2~~, characterized in that the ratio of the axial lengths
6 (L_{10} , L_{12} , L_{13}) of the crestal segment (10) or the tip segment (13)
7 on the one hand to the middle segment (12) on the other hand lies
8 between 1:1 and 1:2.

1 4. (currently amended) The dental implant according to
2 ~~one of the preceding claims~~ claim 1, characterized in that the
3 ratio of the thread outer diameter (D_9 ; D_{13}) in the crestal segment
4 and the middle segment to that of the apical end of the tip segment
5 (13) lies at about 4:3.5.

1 5. (currently amended) The dental implant according to
2 ~~one of the preceding claims~~ claim 1 characterized in that the
3 anchoring head (6) has an internal hexagonal rounded surface
4 toothed socket (5) adjacent a blind threaded bore (6) close to the
5 apical side.

1 6. (currently amended) A set of dental implants,
2 especially in accordance with ~~one of the preceding claims~~ claim 1,
3 characterized in that the crestal anchoring surface (4) of the
4 anchoring head (2) has at least two of the dental implants (1, 1',
5 1'') of an outer diameter different from the thread outer diameter
6 (D_s , D_N , D_B) and different from a normal outer diameter (D_N).

1 7. (original) The dental implant set according to claim
2 6 characterized by

3 a normal thread implant (1) with a rigorously
4 cylindrical outer shape of the anchoring head (2) whose normal
5 outer diameter (D_N) corresponds to the normal thread outer diameter
6 (D_g) in the crestal segment (10), as well as

7 at least one small thread implant (1') with cylindrical
8 base outer configuration of the anchoring heads (2) and in which
9 the crestal edge of the anchoring heads (2) there is a
10 circumferential widening which has the normal outer diameter (D_N),
11 and/or

12 at least one wide thread implant (1'') with a cylindrical
13 base outer shape of the anchoring head (2) and in which at the
14 crestal edge of the anchoring head (2) a circumferential bevel (18)
15 is provided which bounds the crestal edge (19) of the normal outer
16 diameter (D_N).

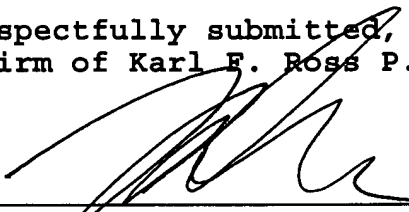
1 8. (currently amended) A final drill for creating a
2 final bore for a dental implant according to ~~one of claims 1 to 5~~
3 claim 1, characterized in that the final drill (21) has a conical
4 cutting contour with the conical pattern matched to the conical
5 angle of the thread cores (8) and with an outer diameter (D_{FB}) which
6 corresponds to the outer diameter (D_{11} , D_{14}) of the thread cores (8).

1 9. (original) A final drill according to claim 8
2 characterized in that the drill has multiple cutters, preferably

3 three cutters, whereby the cutters extend from the tip (23) over
4 the area (24) of the drill (21) up to a depth stop (25) on the
5 shank (26).

This preliminary amendment is submitted to avoid multiple claim dependency and to provide the cross reference of the present phase of the PCT application to the international application, as required by Rule 78.

Respectfully submitted,
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